

## Table of Contents

Preface .....	iii
Symposium Organizers.....	iv
<b>State-of-the-art Program on Compound Semiconductors (XXXIII)</b>	
InP HBT and HEMT Technology and Applications .....	3
<i>A. Gutierrez-Aitken, A. K. Oki, D. C. Streit, R. Lai, D. Sawdai, Y. C. Chen, E. Kaneshiro, R. Grundbacher, P. C. Grossman, T. Block, P. Chin, M. Barsky, M. Wojtowicz, and H. C. Yen</i>	
Reduced Area InGaAs/InP HBT Device Fabrication for High Speed Circuit Applications .....	7
<i>R. F. Kopf, N. G. Weimann, R. A. Hamm, R. W. Ryan, A. Tate, M. A. Melendes, R. Melendes, Q. Lee, G. Georgiou, Y. Baeyens, and Y-K. Chen</i>	
Non-Crystallographic Wet Etching of Gallium Arsenide .....	15
<i>A. G. Baca, J. R. Laroche, P. C. Chang, and F. Ren</i>	
Chemical Etching Behavior of n-AlGaAs/p-AlGaAs Structures under Different Light Illumination Conditions .....	22
<i>K. Shigyo and Z. Kawazu</i>	
Progress in Mid-IR Type-II Interband Cascade Lasers .....	31
<i>R. Q. Yang, J. L. Bradshaw, J. D. Bruno, J. T. Pham, and D. E. Wortman</i>	
Development of III-Nitrides for Near-Infrared Optoelectronics using Intersubband Transitions .....	42
<i>H. M. Ng, C. Gmachl, S. N. G. Chu, and A. Y. Cho</i>	
Visible Vertical Cavity Light Emitters for Fibre Optical Communication .....	49
<i>M. Saarinen, V. Vilokinen, P. Sipil%, N. Xiang, S. Orsila, M. Guina, P. Melanen, M. Dumitrescu, P. Uusimaa, P. Savolainen, and M. Pessa</i>	
Characteristics of Novel InGaAsN Double Heterojunction Bipolar Transistors .....	69
<i>N. Y. Li, P. C. Chang, A. G. Baca, J. R. Laroche, F. Ren, E. Armour, P. R. Sharps, and H. Q. Hou</i>	
Antimonide-Based Long-Wavelength Lasers on GaAs Substrates .....	82
<i>J. F. Klem and O. Blum</i>	

Novel MOS Schemes for Electronic Devices with Photoanodically Grown Oxides on GaN Surfaces .....	91
<i>D. Mistele, T. Rotter, R. Ferretti, H. Klausing, F. Fedler, O. K. Semchinova, J. Stemmer, J. Aderhold, and J. Graul</i>	
GaN Power Devices .....	99
<i>S. J. Pearton, F. Ren, A. P. Zhang, G. Dang, X. A. Cao, K. P. Lee, H. Cho, B. P. Gila, J. W. Johnson, C. Monier, C. R. Abernathy, J. Han, A. G. Baca, J.-I. Chyi, C.-M. Lee, T.-E. Nee, C.-C. Chuo, G. C. Chi, and S. N. G. Chu</i>	
Fabrication of an Integrated Optics 1 to 2 Optical Switch .....	114
<i>Y. Hernandez, J.-P. Vilcot, D. Decoster, J. Chazelas</i>	
Optical Characterization of Acceptor Implantation in GaN .....	120
<i>B. J. Skromme, G. L. Martinez, A. Suvkhanov, L. Krasnobaev, and D. B. Poker</i>	
Cantilever Epitaxy: A Simple Lateral Growth Technique for Reducing Dislocation Densities in GaN and Other Nitrides.....	132
<i>C. I. H. Ashby, C. C. Willan, J. Han, N. A. Missert, P. P. Provencio, D. M. Follstaedt, G. M. Peake, and L. Griego</i>	
The Formation Mechanism of SiC/Si Interface in the Growth of SiC Films on Si .....	140
<i>K. S. Nahm, K. C. Kim, C. I. Park, and J. I. Roh</i>	
SiO <sub>2</sub> /Gd <sub>2</sub> O <sub>3</sub> /GaN Metal Oxide Semiconductor Field Effect Transistors .....	152
<i>J. W. Johnson, B. P. Gila, B. Luo, K. P. Lee, C. R. Abernathy, S. J. Pearton, J. I. Chyi, T. E. Nee, C. M. Lee, C. C. Chuo, T. J. Anderson, and F. Ren</i>	
The Effect of N <sub>2</sub> Plasma Damage on DC and RF Characteristics of HEMTs .....	158
<i>B. Luo, V. P. Trivedi, F. Ren, C. H. Hsu, S. J. Pearton, C. R. Abernathy, X. Cao, C. S. Wu, M. Hoppe, J. Sasserath, and J. W. Lee</i>	
<b>High Speed Devices for Wireless Applications II</b>	
III V Enhancement Mode Field Effect Transistor Technologies for Cellular Applications....	171
<i>J. Costa</i>	
Indium Phosphide HBT Device Parameter Extraction for Spice Modeling and Process Optimization .....	186
<i>N. G. Weimann, R. F. Kopf, R. A. Hamm, J.-M. Kuo, Q. Lee, M. Melendes, R. Melendes, R. W. Ryan, A. Tate, and Y. K. Chen</i>	
The Aluminum-Free P-n-P InGaAsN Double Heterojunction Bipolar Transistors .....	192
<i>P. C. Chang, N. Y. Li, A. G. Baca, C. Monier, J. R. Laroche, H. Q. Hou, F. Ren, and S. J. Pearton</i>	

Fabrication and Materials Characterization of Pulsed Laser Deposited Nickel Silicide Ohmic Contacts to 4H n-SiC.....	198
<i>M. W. Cole, P. C. Joshi, C. W. Hubbard, E. Ngo, J. D. Demaree, J. K. Hirvonen, M. Wood, M. Ervin, C. J. K. Richardson, and M. H. Wisnioski</i>	
Author Index .....	210
Subject Index .....	212